

IN THE CLAIMS

1. (Cancelled)

2. (Currently Amended)

The soil tillage device of claim 4-33 wherein each of said hoe blades are disposed transversely with respect to the longitudinal axes of said beams.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended)

15 The soil tillage device of claim 8 30 wherein said first gear comprises a worm gear and wherein said second gear comprises a spur gear.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

18. (Currently Amended)

The soil tillage device of claim 17-31 wherein said first gear comprises a worm gear and wherein said second gear comprises a spur gear.]

19. (Cancelled)

20. (Currently Amended)

The soil tillage device of claim 49-35 wherein each of said first and second tillage members comprise first and second hoe blades, respectively, and wherein said hoe blades are disposed transversely with respect to the longitudinal axes of said beams.

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Currently Amended)

The soil tillage device of claim 26-32 wherein said first gear comprises a worm gear and wherein said second gear comprises a spur gear.

28. (Currently Amended)

The soil tillage device of claim 19 35 wherein rocker arms reciprocatably secure said first and second beams to said support member.

29. (Original)

The soil tillage device of claim 28 wherein offset crank arms connect said drive mechanism to said first and second beams intermediate the lengths thereof.

30. (New)

A powered soil tillage device, comprising:

a elongated, hollow support member having upper and lower ends;

a handle on said support member at the upper end thereof;

a power means on said support member at the upper end thereof;

a power shaft extending from said power means downwardly through said hollow support member;

a gearbox on said support member at the lower end thereof and having first and second sides; said gearbox being operatively connected to and driven by said power shaft;

said gearbox including a driven, transversely extending first shaft rotatable about a generally horizontal axis, with first and second ends positioned outwardly of said first and second sides of said gearbox;

a first elongated crank arm having first and second ends;

a second elongated crank arm having first and second ends;

said first end of said first crank arm being secured to said first end of said first shaft in a transversely disposed relationship thereto for rotation with said first shaft;

1 said first end of said second crank arm being secured to said second end of said first
shaft in a transversely disposed relationship thereto for rotation with said first
shaft;

5 said first and second crank arms being offset with respect to one another
approximately 180 degrees;

10 a support secured to said hollow support member between said gearbox and said
upper end of said hollow support member and having first and second sides;

15 a first elongated rocker arm having first and second ends;

20 a second elongated rocker arm having first and second ends;

25 said first end of said first rocker arm being rotatably secured to said support at said
one side thereof;

30 said first end of said second rocker arm being rotatably secured to said support at said
second side thereof;

35 a first elongated beam having first and second ends;

40 a second elongated beam having first and second ends;

45 said first end of said first beam being rotatably secured to said second end of said first
rocker arm;

50 said first end of said second beam being rotatably secured to said second end of said
second rocker arm;

55 said first beam being rotatably secured, intermediate its length, to said second end of
said first crank arm;

1 said second beam being rotatably secured, intermediate its length, to said second end
of said second crank arm;
said second ends of said first and second beams being positioned beyond said lower
end of said hollow support member;
5 a first hoe blade secured to said second end of said first beam; and
a second hoe blade secured to said second end of said second beam;
said gearbox comprising an L-shaped housing including: (a) a first housing portion
which has upper and lower ends and which is generally aligned with and
10 secured to the lower end of said elongated support member, and (b) a second housing portion extending upwardly from said lower end of said
first housing portion;
said gearbox having a first gear secured to the lower end of said power shaft for
rotation therewith, and a second gear in mesh with said first gear;
15 said second gear being mounted on said first shaft for rotation therewith.

31. (New)

A powered soil tillage device, comprising:
an elongated support member having upper and lower ends;
20 a handle on said support member;
a power means on said support and including a power shaft;
a gearbox on said support member at the lower end thereof and having first and
second sides; said gearbox being operatively connected to and driven by said
power shaft;
25

1 said gearbox including a driven, transversely extending first shaft rotatable about a
generally horizontal axis, with first and second ends positioned outwardly of
said first and second sides of said gearbox;

5 a first elongated crank arm having first and second ends;

10 a second elongated crank arm having first and second ends;
said first end of said first crank arm being secured to said first end of said first shaft in
a transversely disposed relationship thereto for rotation with said first shaft;
said first end of said second crank being secured to said second end of said first shaft
15 in a transversely disposed relationship thereto for rotation with said first shaft;
said first and second crank arms being offset with respect to one another
approximately 180 degrees;

20 a support secured to said elongated support member between said gearbox and said
upper end of said elongated support member and having first and second sides;
a first elongated rocker arm having first and second ends;
a second elongated rocker arm having first and second ends;
said first end of said first rocker arm being rotatably secured to said support at said
one side thereof;

25 said first end of said second rocker arm being rotatably secured to said support at said
second side thereof;
a first elongated beam having first and second ends;
a second elongated beam having first and second ends;

1 said first end of said first beam being rotatably secured to said second end of said first
1 rocker arm;

2 said first end of said second beam being rotatably secured to said second end of said
2 second rocker arm;

3 5 said first beam being rotatably secured, intermediate its length, to said second end of
3 said first crank arm;

4 said second beam being rotatably secured, intermediate its length, to said second end
4 of said second crank arm;

5 10 said second ends of said first and second beams being positioned beyond said lower
5 end of said support member;

6 a first tillage member secured to said second end of said first beam; and

7 a second tillage member secured to said second end of said second beam;

8 each of said first and second tillage members comprising first and second hoe blades,
8 15 respectively, and wherein said hoe blades are disposed transversely with
8 respect to the longitudinal axes of said beams;

9 said gearbox comprising an L-shaped housing including: (a) a first housing portion
9 which has upper and lower ends and which is generally aligned with and
9 20 secured to the lower end of said elongated support member; and (b) a second
9 housing portion extending upwardly from said lower end of said first housing
9 portion;

1 said gearbox having a first gear secured to the lower end of said power shaft for
rotation therewith, and a second gear in mesh with said first gear;
said second gear being mounted on said first shaft for rotation therewith.

32. (New)

5 A powered soil tillage device, comprising:
an elongated support member having upper and lower ends;
a handle on said support member;
a power means on said support member;
10 a drive mechanism on said support member; said drive mechanism being operatively
connected to and driven by said power means;
a first elongated beam reciprocatably mounted on said support member; having first
and second ends;
a second elongated beam reciprocatably mounted on said support member; having
15 first and second ends;
said first and second beams being laterally spaced from one another;
said first and second beams being connected to said drive mechanism;
said drive mechanism causing said first and second beams to be reciprocatably
20 moved in an offset manner with respect to one another;
said second ends of said first and second beams being positioned beyond said lower
end of said support member;
a first tillage member secured to said second end of said first beam; and
a second tillage member secured to said second end of said second beam;

said drive mechanism comprising a gearbox having a first gear operatively secured to said power shaft for rotation therewith, and a second gear in mesh with said first gear;

said second gear being mounted on said first shaft for rotation therewith.

33. (New)

A powered soil tillage device, comprising:

an elongated, hollow support member having upper and lower ends;

a handle on said support member at the upper end thereof;

a power means on said support member at the upper end thereof;

a power shaft extending from said power means downwardly through said hollow support member;

a gearbox on said support member at the lower end thereof and having first and second sides; said gearbox being operatively connected to and driven by said power shaft;

said gearbox including a driven, transversely extending first shaft rotatable about a generally horizontal axis, with first and second ends positioned outwardly of said first and second sides of said gearbox:

20 a first elongated crank arm having first and second ends;

a second elongated crank arm having first and second ends;

said first end of said first crank arm being secured to said first end of said first shaft in a transversely disposed relationship thereto for rotation with said first shaft;

1 said first end of said second crank arm being secured to said second end of said first
5 shaft in a transversely disposed relationship thereto for rotation with said first
 shaft;
 said first and second crank arms being offset with respect to one another
5 approximately 180 degrees;
 a support secured to said hollow support member between said gearbox and said
 upper end of said hollow support member and having first and second sides;
 a first elongated rocker arm having first and second ends;
10 a second elongated rocker arm having first and second ends;
 said first end of said first rocker arm being rotatably secured to said support at said
 one side thereof;
 said first end of said second rocker arm being rotatably secured to said support at said
 second side thereof;
15 a first elongated beam having first and second ends;
 a second elongated beam having first and second ends;
 said first end of said first beam being rotatably secured to said second end of said first
 rocker arm;
20 said first end of said second beam being rotatably secured to said second end of said
 second rocker arm;
 said first beam being rotatably secured, intermediate its length, to said second end of
 said first crank arm;

25

1 said second beam being rotatably secured, intermediate its length, to said second end
1 of said second crank arm;
said second ends of said first and second beams being positioned beyond said lower
end of said hollow support member;
5 a first hoe blade secured to said second end of said first beam; and
a second hoe blade secured to said second end of said second beam;
said first hoe blade having an inwardly extending blade portion which extends inwardly
from said first beam;
10 said second hoe blade having an inwardly extending blade portion which extends
inwardly from said second beam;
said inwardly extending blade portions being positioned in an approximate center-line
position, one behind the other.

34. (New)

15 A powered soil tillage device, comprising:
an elongated support member having upper and lower ends;
a handle on said support member;
a power means on said support and including a power shaft;
20 a gearbox on said support member at the lower end thereof and having first and
second sides; said gearbox being operatively connected to and driven by said
power shaft;

1 said gearbox including a driven, transversely extending first shaft rotatable about a
generally horizontal axis, with first and second ends positioned outwardly of
said first and second sides of said gearbox;

5 a first elongated crank arm having first and second ends;

10 a second elongated crank arm having first and second ends;
said first end of said first crank arm being secured to said first end of said first shaft in
a transversely disposed relationship thereto for rotation with said first shaft;
said first end of said second crank being secured to said second end of said first shaft
15 in a transversely disposed relationship thereto for rotation with said first shaft;
said first and second crank arms being offset with respect to one another
approximately 180 degrees;

20 a support secured to said elongated support member between said gearbox and said
upper end of said elongated support member and having first and second sides;
a first elongated rocker arm having first and second ends;
a second elongated rocker arm having first and second ends;
said first end of said first rocker arm being rotatably secured to said support at said
one side thereof;

25 said first end of said second rocker arm being rotatably secured to said support at said
second side thereof;
a first elongated beam having first and second ends;
a second elongated beam having first and second ends;

1 said first end of said first beam being rotatably secured to said second end of said first
1 rocker arm;

2 said first end of said second beam being rotatably secured to said second end of said
2 second rocker arm;

3 5 said first beam being rotatably secured, intermediate its length, to said second end of
3 said first crank arm;

4 said second beam being rotatably secured, intermediate its length, to said second end
4 of said second crank arm;

5 10 said second ends of said first and second beams being positioned beyond said lower
5 end of said support member;

6 a first tillage member secured to said second end of said first beam; and

7 a second tillage member secured to said second end of said second beam;

8 said first tillage member having an inwardly extending portion which extends inwardly
8 15 from said first beam;

9 said second tillage member having an inwardly extending portion which extends
9 inwardly from said second beam;

10 said inwardly extending portions being positioned in an approximate center-line
10 20 position, one behind the other.

11 25 35. (New)

12 A powered soil tillage device, comprising:
13 an elongated support member having upper and lower ends;
14 a handle on said support member;

1 a power means on said support;

2 a drive mechanism on said support member; said drive mechanism being operatively
3 connected to and driven by said power means;

4 a first elongated beam reciprocatably mounted on said support member; having first
5 and second ends;

6 a second elongated beam reciprocatably mounted on said support member; having
7 first and second ends;

8 said first and second beams being laterally spaced from one another;

9 said first and second beams being connected to said drive mechanism;

10 said drive mechanism causing said first and second beams to be reciprocatably
11 moved in an offset manner with respect to one another;

12 said second ends of said first and second beams being positioned beyond said lower
13 end of said support member;

14 a first tillage member secured to said second end of said first beam; and

15 a second tillage member secured to said second end of said second beam;
16 said first tillage member having an inwardly extending portion which extends inwardly
17 from said first beam;
18 said second tillage member having an inwardly extending portion which extends
19 inwardly from said second beam;
20 said inwardly extending portions being positioned in an approximate center-line
21 position, one behind the other.